

**SECRET**

OUT: 67591

1969 MAY 2 21 19Z

P 022100Z MAY 69  
 FM NPIC WASHDC  
 TO RHCOAAA/SAC OFFUTT AFB OMAHA NEB  
 RHCOAAA/544TH ARTW OFFUTT AFB OMAHA NEB  
 RUCILBA/100TH SRW OL 19 MCCOY AFB FLA  
 RUWMODA/100TH SRW DAVIS MONTHAN AFB ARIZ  
 RUWMODA/12 SAD DAVIS MONTHAN AFB ARIZ  
 RUEBJRA/NAVRECONTECHSUPPCEN SUITLAND MD  
 RUEAIIA/CIA WASH DC  
 RUEOJFA/DIA  
 RUWBKNA/15TH AF MARCH AFB RIVERSIDE CALIF  
 RUEFHQA/HQS USAF

BT

SECRET CITE NPIC 6231.

15TH (FOR DI, DO, DM4C); SAC (FOR GLASS LAMP, DOSR, DM4C,  
 DIR, DISD, DISR); 100TH SRW (FOR DO, DCOI, DCM, AEMS);  
 12 SAD (FOR DM); USAF FOR AFIGOS [REDACTED]  
 DIA FOR DIAXX-2.  
 FROM NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER.  
 REF: DIAXX-2 7547 APR 1969

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SUBJECT: LOW GAMMA PROCESSING OF GLASS LAMP MATERIAL

1. A DETAILED IMAGE QUALITY COMPARISON OF MISSION MATERIALS  
 PROCESSED IN MX578 WITH THAT PROCESSED IN LOW GAMMA CHEMISTRY IS  
 NOT PRACTICAL. THE MINOR QUALITY DIFFERENCES ASSOCIATED WITH  
 PROCESSING CANNOT BE SEPARATED FROM THOSE DIFFERENCES ASSOCIATED  
 WITH DEGRADING FACTORS SUCH AS ATMOSPHERICS, CAMERA PERFORMANCE  
 VARIABLES, ETC. THE FOLLOWING GENERAL STATEMENTS, HOWEVER, CAN  
 BE MADE.

A. MOST MISSIONS FLOWN IN THIS PROGRAM ARE OVEREXPOSED  
 NEAR THE END OF THE MISSION. THE CONSEQUENCES OF OVEREXPOSURE  
 ARE MINIMIZED BY THE USE OF LOW GAMMA CHEMISTRY.

B. A DISTINCT LOSS OF CONTRAST IS APPARENT IN THE  
 MATERIALS PROCESSED IN LOW GAMMA CHEMISTRY COMPARED TO THOSE  
 PROCESSED IN MX578. THIS LOSS OF CONTRAST MAKES TARGET  
 DETECTION MUCH MORE DIFFICULT DURING MISSION SCANNING. IN  
 ADDITION, OBJECT IDENTIFICATION BY MEANS OF SHADOW FORM IS  
 MORE DIFFICULT ON LOW CONTRAST POSITIVES.

C. WHEN HAZE CONDITIONS PREVAIL, A GREATER LOSS OF DETAIL  
 IS APPARENT IN THE MATERIALS PROCESSED WITH LOW GAMMA CHEMISTRY  
 THAN IN THE PRODUCTS PROCESSED IN MX578.

ADVANCE CY  
SANITIZED  
WITH TEXT

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2. FROM PARAGRAPHS B AND C ABOVE IT WOULD APPEAR THAT LOW GAMMA  
 PROCESSING HAS A DEGRADING EFFECT ON THE EXPLOITATION OF GLASS LAMP  
 MISSION MATERIAL. TO SUBSTANTIATE THESE FINDINGS IT IS RECOMMENDED  
 THAT THE NEXT OPERATIONAL GLASS LAMP MISSION BE PROCESSED IN BOTH  
 CHEMISTRIES, I.E., THE RIGHT SIDE IN MX578 AND THE LEFT SIDE IN  
 MX819, FOR COMPARISON PURPOSES. IF THIS CANNOT BE ACCOMPLISHED  
 THEN THE FOLLOWING ALTERNATIVES ARE SUGGESTED.

A. A POSSIBLE ADJUSTMENT IN PROCESSING OF THE POSITIVE  
 TO PROVIDE HIGHER CONTRAST.

B. REVERT TO MX578 CHEMISTRY FOR GLASS LAMP NEGATIVE PROCESSING.

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